Matthew W. Noble BSc MSc

♦ British citizenship ♦ M: (+44) 7846751826 ♦ matthew.william.noble@gmail.com ♦ http://matthewnoble.info/MyCV.html ♦
♦ Coding portfolio: https://github.com/MatthewWilliamNoble/CodingPortfolio ♦

EDUCATION

Oct. 2013 – Oct. 2017 **Oriel College, University of Oxford**
Award: **DPhil** in Materials Science at the Department of Materials Science, University of Oxford
Supervisors: Prof. C. R. M. Grovenor and Dr S. P. Fitzgerald
Research title: "Investigating the Bubble Lattice Phenomenon in Nuclear Materials"

Oct. 2012 – Oct. 2013 **University of York**
Award: **MSc** (Merit) in Fusion Energy at the York Plasma Institute, University of York

Sep. 2009 – Jun. 2012 **University of St Andrews**
Award: **BSc** (Hons.) in Physics at the Department of Physics, University of St Andrews

DPhil EXPERIENCE

My DPhil research investigated the phenomenon of spontaneous ordering of an initially random distribution of inert gas bubbles inside of nuclear reactor components into a long-range 3D superlattice isostructural to the host metal lattice. The phenomenon occurs within narrow windows of operation – and environmental – conditions such as temperature and irradiation dose.

The phenomenon was investigated by deriving a pair of coupled reaction-diffusion PDEs to describe the system, performing a linear stability analysis on the derived equations, searching for the wavelengths which would drive the experimentally observed periodic bubble lattices, and modelling the equations in MATLAB using a forward-time central finite-difference method.

KEY SKILLS

- ♦ Experimental design and statistical hypothesis testing.
- ♦ Exploratory data analysis and data visualization.
- ♦ Project management.
- ♦ Powerpoint and Prezi presentations and public speaking.
- ♦ Data collection and data wrangling.
- ♦ Machine-learning.
- ♦ Self-motivated research and learning.
- ♦ Report writing.

TECHNICAL SKILLS

Languages (Exp.): Python (5 years), R (1 year), MATLAB (5 years), and Mathematica (5 years)
Python libraries: NumPy, SciPy, Pandas, matplotlib, Seaborn, scikit-learn, TensorFlow, NLTK, and statsmodels
Technologies: Git and SQL

UNIVERSITY MODULES / COURSES TAKEN

Introduction to Probability and Statistics by MIT: OpenCourseware
Career Track: Data Scientist with Python by DataCamp [Currently enrolled]
Applied Data Science with Python: Specialization by Coursera [Currently enrolled]
Advanced Microsoft Office: Word, Excel, and PowerPoint by the University of Oxford

HOBBIES AND INTERESTS

Powerlifting
2014/2015 treasurer, 2015/2016 president, and 2016/2017 secretary of the Oxford University Powerlifting Club (OUPLC). Full-blue athlete. 3x Oxford Vs Cambridge Varsity, 3x British University Championships, and 1x World University Championships competitor.